

A B S T R A C T

A METHOD AND APPARATUS FOR MEASURING THE PROPAGATION TIME
OF A SIGNAL, IN PARTICULAR AN ULTRASOUND SIGNAL

5

A method of measuring the propagation time T_p of an
ultrasound signal between two spaced-apart transducers,
one constituted by an emitter and the other by a
receiver, the emitter transducer being subjected to an
10 excitation signal causing an ultrasound wave to be
emitted towards the receiver transducer, said ultrasound
wave causing the receiver transducer to output a receive
signal, the method comprising the following steps:

· beginning a measurement of an intermediate
15 propagation time T_{int} at the beginning of emitter
transducer excitation;

· detecting the receive signal output by the
receiver transducer and counting the oscillations in said
receive signal;

20 · stopping the measurement of the intermediate
propagation time T_{int} when an i^{th} oscillation is detected;
and

· determining the propagation time T_p of the signal
by taking the difference $T_{int} - i \times T_e$.

25

30

Translation of the title and the abstract as they were when
originally filed by the Applicant. No account has been taken of any
changes that may have been made subsequently by the PCT Authorities
acting ex officio, e.g. under PCT Rules 37.2, 38.2, and/or 48.3.